

SOUTH DAKOTA DEPARTMENT OF TRANSPORTATION PRICE ADJUSTMENT GUIDELINES

REVISED 5/19/2023

1. GENERAL

These guidelines were developed to provide statewide guidance in administering price adjustments for material furnished, work performed, or finished product not within strict conformity with the plans and specifications but, as determined by the Engineer, within reasonable conformity with the plans and specifications and allowed to remain in place. Individuals using these guidelines should keep in mind the guidelines are guidelines. Engineering judgement should always be used in administering these guidelines, as each situation is unique.

These guidelines in no way indicate acceptability of work. These guidelines are only to be used as a guide for price adjusting material/work the Engineer has determined to have no significant impact on service life.

A price adjustment is not a substitute for specification compliance. Good engineering judgement must also be exercised in determining what work is acceptable based on the plans, contract documents, and expertise from support staff. Unacceptable work must be removed and replaced with acceptable work. The Contractor does not have the option of continuing production of deficient work and accepting a price reduction in lieu of producing specification work. Price adjustments are based on specification and not on test tolerances.

If a specification deviation occurs that is not covered by the guidelines, the Region Engineer will determine the appropriate action.

The quantity used in the determination of the price adjustment will be the quantity represented by the failing sample. That amount is the quantity half-way back to the previous test and half-way forward to the following test. This methodology will be used to determine the quantity represented unless otherwise specified (R.S.T.C. Section 5.5). There is an exception to this guidance; if a test is missed, the test results from a test adjacent to a missed test cannot represent more than the minimum testing frequency.

If a price adjustment is warranted, the minimum price adjustment recommended for any material out of specification is \$200.

When administering the price adjustment for multiple failures on the same test or material, the price adjustments will be computed and added together cumulatively, unless otherwise stated in the guidelines. If the item being price adjusted is bid based on furnish only (such as maintenance asphalt) the indicated price adjustment should be multiplied by 1.25. Multiple failures may incur adjustments larger than those contained in these guidelines.

For price adjustments involving PCC Overlays with two separate Bid Items (PCC Overlay, Furnish and PCC Overlay, Placement), the unit price adjustment shown in these guidelines will be applied to the Quantity Affected for both Bid Items. The Quantity Affected calculations will be as follows:

- PCC Overlay, Placement: Determine the Quantity Affected in square yards based on the length x width of the section.

- PCC Overlay, Furnish: Determine the Quantity Affected in cubic yards by multiplying the Quantity Affected of “PCC Overlay, Placement” by the “CuYd/SqYd Factor”. The “CuYd/SqYd Factor” is based on the daily total quantity in cubic yards (less waste) divided by the daily total square yards of “PCC Overlay, Placement” (see DOT-98 for quantities).

2. GRADATION DEVIATIONS

Portland Cement Concrete*

Coarse Aggregate (All Sieves) Fine Aggregate (3/8", #4 sieves)		Fine Aggregate (- #4 Sieves)		Combined -#200	
Deviation (%)	Deduct (%)	Deviation (%)	Deduct (%)	Deviation (%)	Deduct (%)
1	0.2	1	0.3	0.1	0.1
2	0.6	2	0.9	0.2	0.4
3	1.2	3	1.8	0.3	1.0
4	2.0	4	3.0	0.4	2.0
5	3.0	5	4.5	0.5	3.0
6	4.0	6	6.0	0.6	4.0
7	5.0	7	7.5	0.7	5.0
8	6.0	8	9.0	0.8	6.0
9	7.0	9	10.5	0.9	7.0
10	8.0	10	12.0	1.0	8.0

PROPERTY	TYPE	DEDUCTION
Uniformity of Grading (Fineness Modulus)		
	Wide Band	0.5% Per 0.01 deviation

Other Aggregate Gradations *

SIEVE SIZE	DEDUCTION
Sieves larger than #40	2% per percent deviation
#40 and Finer Sieves	4% per percent deviation

* All deductions will be added together cumulatively. If Class D, E, or G Asphalt Concrete is specified, the deduction will apply to the narrow band. If aggregate is for a maintenance stockpile, reduce deduction applied by 50%.

Note: These guidelines are not to be used on mineral aggregate gradation samples for asphalt concrete mix on Class Q projects.

PI and LL Deviations **

PI	4% per percent deviation
LL	2% per percent deviation

** Only the higher price adjustment between LL and PI will be used if both are failing.

Note: These guidelines are not to be used on mineral aggregate gradation samples for asphalt concrete mix on Class Q projects.

3. LA ABRASION LOSS

Deduct 2% per percent deviation above specification.

4. SODIUM SULFATE SOUNDNESS LOSS

Deduct 0.5% per percent deviation above specification.

5. LIGHTWEIGHT PARTICLES

Deduct 4% per 0.1% deviation above specification.

Note: These guidelines are not to be used on mineral aggregate gradation samples for asphalt concrete mix on Class Q projects.

6. CRUSHED PARTICLES

Deduct 1% per percent deviation below specification.

Note: These guidelines are not to be used on mineral aggregate gradation samples for asphalt concrete mix on Class Q projects.

7. ASPHALT BINDERS

The price adjustments for Asphalt Binder are not cumulative and only the highest price adjustment should be used to determine amount paid the Contractor.

Price Adjustment will only be applied when both samples of the bitumen fail to meet the governing specification. The price adjustment for the individual test requirement will be determined using the test result (Sample A or B) closest to the specification limits.

SHRP PERFORMANCE GRADED BINDERS

Original Binder	Rolling Thin Film Oven		Pressure Aging Vessel			Price Deduction	
	Dynamic Shear Rheometer minimum (kPa)	Dynamic Shear Rheometer minimum (kPa)	Mass Loss, %	Dynamic Shear Rheometer maximum (kPa)	Creep Stiffness		Failure Strain (min.)
>1.00	>2.2	<1.0	<5000	S, max. (MPa)	m-value (min.)	NA	0%
1.00 to 0.93	2.20 to 1.98	1.0 to 1.2	5000 to 5600	<300	>0.300	NA	0%
0.92 to 0.86	1.97 to 1.76	1.3 to 1.4	5601 to 6200	300 to 324	0.300 to 0.285	NA	5-15%
0.85 to 0.72	1.75 to 1.32	1.5 to 1.8	6201 to 7400	325 to 348	0.284 to 0.270	NA	16-35%
<0.71	<1.31	>1.9	>7401	349 to 396	0.269 to 0.240	NA	requires special attention
				>397	<0.239	NA	requires special attention

Deviation should be pro-rated to establish exact price reduction within the given range.

Tests on Flash Point

TEST	GRADE	DEVIATION	DEDUCTION
Flash Point (Cleveland open cup)	All Grades	0-15°F	2%
		16-30°F	5%
		31-45°F	10%
		46-60°F	15%
		61-75°F	20%
		76°F or greater	requires special attention

Tests on Elastic Recovery

TEST	GRADE	DEVIATION	DEDUCTION
Elastic Recovery	All Grades	1-5 under minimum	10%
		6-10 under minimum	20%
		11-15 under minimum	30%
		16-20 under minimum	40%
		21-25 under minimum	50%
		26 or greater under minimum	requires special attention

8. RAPID AND MEDIUM CURING CUTBACK ASPHALTS
(MC-30, MC-70, MC-250, MC-800, MC-3000, RC-70, RC-800, RC-3000)

Price adjustments for cutback asphalts are not cumulative. Use only the highest price adjustment.

Price Adjustment will only be applied when both samples of the bitumen fail to meet the governing specification. The price adjustment for the individual test requirement will be determined using the test result (Sample A or B) closest to the specification limits.

Tests on Viscosity

TEST	GRADE	DEVIATION	DEDUCTION
Viscosity	70	Below 70 c.s.	1.5% deduction per c.s.
		Above 140 c.s.	0.4% deduction per c.s.
Viscosity	250	Below 250 c.s.	0.25% deduction per c.s.
		Above 500 c.s.	0.15% deduction per c.s.
Viscosity	800	Below 800 c.s.	0.15% deduction per c.s.
		Above 1600 c.s.	0.05% deduction per c.s.
Viscosity	3000	Below 3000 c.s.	0.03% deduction per c.s.
		Above 6000 c.s.	0.015% deduction per c.s.

Tests on Percent Residue from Distillation & Percent Distillation

TEST	GRADE	DEDUCTION
Percent Residue From Distillation	All Grades and Types	Deduct 3.0% per percent deviation
Distillation	All Grades and Types	\$200.00

Note: The Percent Residue from Distillation test measures the amount (volume) of asphalt (as a percentage) collected as the test is performed - up to the 680 degree requirement.

The distillation value is the volume (as a percentage) of the solvent (cutter stock) that is generated during the test as it is performed - up to the 680 degree requirement.

Test on Residue from Distillation

TEST	GRADE	DEVIATION	DEDUCTION
Pen of Residue	RC Type All Grades	Less than 80 or greater than 120	1% deduction per penetration point deviation
	MC Type All Grades	Less than 120 or greater than 250	1% deduction per penetration point deviation below the specification limit and 0.5% deduction per penetration point deviation above the specification limit
Ductility	All Grades and Types	0-2 cm	2%
		3-4 cm	5%
		5-6 cm	10%
		7-9 cm	15%
		10-12 cm	20%
		13 cm or greater	requires special attention

Tests on Flash Point

TEST	GRADE	DEVIATION	DEDUCTION
Flash Point (Tag. open cup)	All Grades and Types	0-4°F	2%
		5-12°F	5%
		13-24°F	10%
		25-36°F	20%
		37°F or greater	requires special attention

9. SLOW CURING CUTBACK ASPHALT

(SC-70, SC-250, SC-800, SC-3000)

Price adjustments for cutback asphalt are not cumulative. Use only the highest price adjustment.

Price Adjustment will only be applied when both samples of the bitumen fail to meet the governing specification. The price adjustment for the individual test requirement will be determined using the test result (Sample A or B) closest to the specification limits.

Tests on Viscosity

TEST	GRADE	DEVIATION	DEDUCTION
Viscosity	70	Below 70 c.s.	1.5% deduction per c.s.
		Above 140 c.s.	0.4% deduction per c.s.
Viscosity	250	Below 250 c.s.	0.25% deduction per c.s.
		Above 500 c.s.	0.15% deduction per c.s.
Viscosity	800	Below 800 c.s.	0.15% deduction per c.s.
		Above 1600 c.s.	0.05% deduction per c.s.
Viscosity	3000	Below 3000 c.s.	0.03% deduction per c.s.
		Above 6000 c.s.	0.015% deduction per c.s.

Test on Residue from Distillation

TEST	GRADE	DEVIATION	DEDUCTION
Asphalt Residue of 100 Pen by Weight	All Grades	0 - 1.9%	1.5 %
		2% - 3.9%	3%
		4% - 5.9%	7%
		6% - 7.9%	12%
		8% - 10%	20%
Distillation Test Total distillate @ 680°F Percent by Volume	All Grades	Variable	\$200.00

Tests on Flash Point

TEST	GRADE	DEVIATION	DEDUCTION
Flash Point (Tag. open cup)	All Grades and Types	0-4°F	2%
		5-12°F	5%
		13-24°F	10%
		25-36°F	20%
		37°F or greater	requires special attention

10. EMULSIFIED ASPHALT

Price adjustments for emulsified asphalt are not cumulative. Use only the highest price adjustment.

Price Adjustment will only be applied when both samples of the bitumen fail to meet the governing specification. The price adjustment for the individual test requirement will be determined using the test result (Sample A or B) closest to the specification limits.

Tests on Viscosity

TEST	GRADE	DEVIATION	DEDUCTION
Viscosity (Sabolt Furol)	SS, CSS	Variable	Deduct 3.0% per 1 second deviation below the specification limit and 1.0% per 1 second deviation above the specification limit.
	AE, HF, CRS, CIR, or other Emulsions	Variable	Deduct 2.0% per 1 second deviation below the specification limit and 0.5% per 1 second deviation above the specification limit.

Tests on Demulsibility

GRADE	DEVIATION	DEDUCTION
All Grades and Types	1-7	2%
	8-15	5%
	16-25	15%
	26 or greater	25%

Tests on Percent Residue from Distillation & Percent Distillation

TEST	GRADE	DEVIATION	DEDUCTION
Percent Residue from Distillation	All Grades and Types	Variable	3.0 % per Percent deviation
*Sieve	All Grades and Types	Variable	Deduct 0.2% per 0.1% deviation

* If successful application of the material has been achieved in the field deduction may be waived.

Test on Residue from Distillation

TEST	GRADE	DEVIATION	DEDUCTION
Pen of Residue	CS, SS, RS, CRS, CMS, CSS, and all other emulsions	Variable	Deduct 0.75% per penetration point below the specification limit and 0.5% per penetration point above the specification limit.
	SS-1h, CSS-1h	Variable	Deduct 2.0% per penetration point below the specification limit and 0.5% per penetration point above the specification limit.
	AE, HF	Variable	Deduct 0.5% per penetration point deviation
Ductility	All Grades and Types	0-2 cm	2%
		3-4 cm	5%
		5-6 cm	10%
		7-9 cm	15%
		10-12 cm	20%
		13 cm or greater	requires special attention
Softening Point	All Grades and Types	1-5°F	2%
		6-10°F	10%
		11-15°F	30%
		16°F or greater	requires special attention

Test on Float

TEST	GRADE	RANGE	DEDUCTION
Float	All Grades and Types	1200-1151 seconds	0.5%
		1150-1051 seconds	1.0%
		1050-951 seconds	2.0%
		950-851 seconds	5.0%
		850-751 seconds	10.0%
		750-651 seconds	20.0%
		650-551 seconds	30.0%
		550-451 seconds	40.0%
		450-351 seconds	45.0%
		350 seconds and less	requires special attention

Tests on Elastic Recovery

TEST	GRADE	DEVIATION	DEDUCTION
Elastic Recovery	All Grades	1-5 under minimum	10%
		6-10 under minimum	20%
		11-15 under minimum	30%
		16-20 under minimum	40%
		21-25 under minimum	50%

Tests on Solubility in Trichloroethylene

TEST	GRADE	DEVIATION	DEDUCTION
Solubility in Trichloroethylene	All Grades	Variable	Deduct 0.1% per 0.1% deviation

11. LOW OR HIGH ASPHALT CONTENT

DEVIATION BELOW PROJECT MIX ASPHALT CONTENT TOLERANCES	SUBSURFACE COURSE & SHOULDER COURSE	SURFACE COURSE
0.1	0.5%	0.5%
0.2	0.5%	1.5%
0.3	1.5%	3.5%
0.4	3.0%	6.0%
0.5	4.5%	9.0%
0.6	6.5%	12.5%
0.7	9.0%	16.0%
0.8	12.0%	20.5%
0.9	14.5%	25.0%
1.0	19.0%	30.0%
1.1	23.0%	36.0%
1.2	27.0%	42.0%

Note: Percent deductions are of project contract unit price for asphalt concrete.

DEVIATION ABOVE PROJECT MIX ASPHALT CONTENT TOLERANCES	SUBSURFACE COURSE & SHOULDER COURSE	SURFACE COURSE
0.1	0.5%	0.5%
0.2	0.5%	0.5%
0.3	1.0%	1.5%
0.4	1.5%	3.0%
0.5	2.5%	4.5%
0.6	4.0%	6.5%
0.7	6.0%	9.0%
0.8	7.5%	12.0%
0.9	9.0%	14.5%
1.0	11.0%	19.0%
1.1	12.5%	23.0%
1.2	15.0%	27.5%

Note: Percent deductions are of project contract unit price for asphalt concrete. In addition to the above deduction, no payment will be made for excess asphalt binder in the mix. Therefore, when using these percentages, ensure that the Engineer has not paid for excess asphalt binder above the project mix tolerances.

12. LOW OR HIGH HYDRATED LIME CONTENT

No payment will be made for excess hydrated lime in the mix. Therefore, ensure the Engineer has not paid for excess hydrated lime above the project mix tolerances and apply the minimum price adjustment. The table below should be used for low hydrated lime content.

Daily Oil Content	Lime content below job mix formula target		
	-0.11 to -0.21	-0.21 to -0.31	-0.31 or greater
At or above job mix formula target	2.0-4.0%	4.0-6.0%	6.0-20.0%
Below job mix formula target	4.0-6.0%	6.0-8.0%	8.0-20.0%

Note: Percent deductions are of project contract unit price for asphalt concrete.

Deviation should be pro-rated to establish exact price reduction within the given range.

13. ASPHALT CONCRETE DENSITY

These guidelines are not to be used on Class Q mix subject to pay factor analysis.

***Lot Average Deviations (Applied to the whole lot.)**

Amount of Deviation	-1%	-2%	-3%	-4%
Deduction	0-5%	5-10%	10-20%	20-30%

Deviation should be pro-rated to establish exact price reduction within the given range. Normally the middle of the band should be selected, with the adjustments up and down from the middle of the band made depending on the circumstances involved.

***Individual Test Deviations**

- If there are 3 or more tests below specification, then apply an additional 2% deduction to the lot.
- If there are 2 or more tests 2% below specification, then apply an additional 2% deduction to the lot.
- If there are any tests 3% or more below specification, then apply an additional 3% deduction to the lot.

* All deductions will be added together cumulatively.

14. ASPHALT CONCRETE AIR VOIDS

These guidelines are not to be used on Class Q mix subject to pay factor analysis.

MATERIAL TYPE	DEDUCTION
Blade Laid Asphalt Concrete	Deduct 0.25% per 0.1 % deviation above or below tolerance
Non-pay factor Class Q mix	Deduct 0.5% per 0.1 % deviation below tolerance Or Deduct 0.25 % per 0.1% deviation above tolerance

15. PORTLAND CEMENT CONCRETE AIR DEVIATIONS

The values in the chart below correspond to the percent air deviation from specification.

Percent Air Deviation		PCC Pavement (Formed)	PCC Pavement (Slipform)	M6	Class A45 Concrete, Drilled Shaft	Class A45 Concrete, Bridge Deck	Class A45 Concrete, Bridge / Bridge Repair	Low Slump	Precast	Prestressed
(%)		Deduct (%)	Deduct (%)	Deduct (%)	Deduct (%)	Deduct (%)	Deduct (%)	Deduct (%)	Deduct (%)	Deduct (%)
-	1.7%	X	X	X	X	X	X	X	X	X
-	1.6%	X	X	X	X	X	X	X	X	X
-	1.5%	X	X	25.0	20.0	20.0	20.0	X	X	X
-	1.4%	X	X	19.0	13.7	13.7	13.7	X	X	X
-	1.3%	X	X	14.0	9.4	9.4	9.4	X	X	X
-	1.2%	X	X	10.5	6.4	6.4	6.4	X	X	X
-	1.1%	X	X	8.0	4.4	4.4	4.4	X	X	X
-	1.0%	25	25	6.0	3.0	3.0	3.0	25	15.0	15.0
-	0.9%	17.0	17.0	4.5	2.0	2.0	2.0	17.0	11.5	11.5
-	0.8%	10.5	10.5	3.3	1.4	1.4	1.4	10.5	8.5	8.5
-	0.7%	7.0	7.0	2.5	1.0	1.0	1.0	7.0	6.0	6.0
-	0.6%	4.5	4.5	1.8	0.6	0.6	0.6	4.5	4.3	4.3
-	0.5%	2.9	2.9	1.2	0.5	0.5	0.5	2.9	3.0	3.0
-	0.4%	1.9	1.9	0.9	0.4	0.4	0.4	1.9	2.0	2.0
-	0.3%	1.2	1.2	0.7	0.3	0.3	0.3	1.2	1.3	1.3
-	0.2%	0.8	0.8	0.6	0.2	0.2	0.2	0.8	0.8	0.8
-	0.1%	0.5	0.5	0.5	0.1	0.1	0.1	0.5	0.5	0.5
	0.0%	0	0	0	0	0	0	0	0	0
+	0.1%	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2
+	0.2%	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.3
+	0.3%	0.4	0.4	0.4	0.3	0.3	0.3	0.5	0.4	0.4
+	0.4%	0.5	0.5	0.5	0.4	0.4	0.4	0.9	0.5	0.5
+	0.5%	0.6	0.6	0.6	0.5	0.5	0.5	1.5	0.6	0.6
+	0.6%	0.7	0.7	0.7	0.6	0.6	0.6	2.5	0.7	0.7
+	0.7%	0.8	0.8	0.8	0.7	0.7	0.7	4.0	0.8	0.8
+	0.8%	0.9	0.9	0.9	0.8	0.8	0.8	7.0	0.9	0.9
+	0.9%	1.0	1.0	1.0	0.9	0.9	0.9	12.0	1.0	1.0
+	1.0%	1.1	1.1	1.1	1.2	1.2	1.2	20.0	1.1	1.1
+	1.1%	1.3	1.3	1.3	1.6	1.6	1.6	Z	1.2	1.2
+	1.2%	1.6	1.6	1.6	2.1	2.1	2.1	Z	1.5	1.5
+	1.3%	2.0	2.0	2.0	2.8	2.8	2.8	Z	1.8	1.8
+	1.4%	2.4	2.4	2.4	3.7	3.7	3.7	Z	2.1	2.1
+	1.5%	2.9	2.9	2.9	4.9	4.9	4.9	Z	2.6	2.6
+	1.6%	3.5	3.5	3.5	6.4	6.4	6.4	Z	3.0	3.0
+	1.7%	4.2	4.2	4.2	8.5	8.5	8.5	Z	3.7	3.7
+	1.8%	5.1	5.1	5.1	11.2	11.2	11.2	Z	4.4	4.4
+	1.9%	6.2	6.2	6.2	14.8	14.8	14.8	Z	5.3	5.3

Percent Air Deviation		PCC Pavement (Formed)	PCC Pavement (Slipform)	M6	Class A45 Concrete, Drilled Shaft	Class A45 Concrete, Bridge Deck	Class A45 Concrete, Bridge / Bridge Repair	Low Slump	Precast	Prestressed
(%)		Deduct (%)	Deduct (%)	Deduct (%)	Deduct (%)	Deduct (%)	Deduct (%)	Deduct (%)	Deduct (%)	Deduct (%)
+	2.0%	7.5	7.5	7.5	20.0	20.0	20.0	Z	6.4	6.4
+	2.1%	9.0	9.0	9.0	Z	Z	Z	Z	7.7	7.7
+	2.2%	11.0	11.0	11.0	Z	Z	Z	Z	9.2	9.2
+	2.3%	13.3	13.3	13.3	Z	Z	Z	Z	11.0	11.0
+	2.4%	16.0	16.0	16.0	Z	Z	Z	Z	13.0	13.0
+	2.5%	20.0	20.0	20.0	Z	Z	Z	Z	15.0	15.0
+	2.6%	Z	Z	Z	Z	Z	Z	Z	Z	Z
+	2.7%	Z	Z	Z	Z	Z	Z	Z	Z	Z

X - Unacceptable

Z - Contact Concrete Engineer for recommendation

Low strength in addition to entrained air deviation – add an additional price adjustment as the situation warrants. Note: Concrete Engineer should be consulted for recommendation.

Deviation should be pro-rated to establish exact price reduction within the given range.

16. PORTLAND CEMENT CONCRETE SLUMP DEVIATIONS

The values in the chart below correspond to the slump deviation.

Slump Deviation	PCC Pavement (Formed)	PCC Pavement (Slipform)	M6	Class A45 Concrete, Drilled Shaft	Class A45 Concrete, Bridge Deck	Class A45 Concrete, Bridge/ Bridge Repair	Low Slump	Precast	Prestressed
	Deduct (%)	Deduct (%)	Deduct (%)	Deduct (%)	Deduct (%)	Deduct (%)	Deduct (%)	Deduct (%)	Deduct (%)
0	0	0	0	0	0	0	0	0	0
1/4"	1.0	1.0	1.0	0.5	0.5	0.5	1.0	1.0	1.0
1/2"	1.3	2.0	1.3	2.0	1.0	0.9	3.0	2.0	2.0
3/4"	1.8	3.0	1.8	7.0	2.0	1.5	9.0	4.0	4.0
1"	2.4	4.5	2.4	20.0	4.5	2.5	25.0	7.0	7.0
1 1/4"	3.2	6.5	3.2	x	9.5	4.0	x	13.5	13.5
1 1/2"	4.3	10.0	4.3	x	20.0	7.0	x	25.0	25.0
1 3/4"	5.8	16.0	5.8	x	x	12.0	x	x	x
2"	7.8	25.0	7.8	x	x	20.0	x	x	x
2 1/4"	10.4	x	10.4	x	x	x	x	x	x
2 1/2"	13.9	x	13.9	x	x	x	x	x	x
2 3/4"	18.7	x	18.7	x	x	x	x	x	x
3"	25.0	x	25.0	x	x	x	x	x	x
> 3"	x	x	x	x	x	x	x	x	x

X - Unacceptable

High water cement ratio or low strength in conjunction with high slump deviation – add an additional price adjustment as the situation warrants. Note: Concrete Engineer should be consulted for recommendation.

Deviation should be pro-rated to establish exact price reduction within the given range.

17. LOW SLUMP DENSE CONCRETE OVERLAY DENSITY

***Lot Average Deviations (Applied to the whole lot.)**

Amount of Deviation	-1%	-2%	-3%
Deduction	10%	25%	Remove & Replace

***Individual Test Deviations**

- If there 2 or more tests below specification, then apply an additional 2% deduction to the lot.
- If there are any tests 2% below specification, then apply an additional 2% deduction to the lot.
- If there are any tests 3% or more below specification, then apply an additional 5% deduction to the lot.

* All deductions will be added together cumulatively.

18. PORTLAND CEMENT CONCRETE STRENGTH DEVIATION

For concrete subject to the compressive strength testing requirements of Section 460.3 B. and determined able to remain in place and subject to a price adjustment, the price adjustment will be determined using the following table.

For all other concrete, the compressive strength of the 28-day cylinder and the 28-day backup cylinder (without correcting back to 28 days) will be averaged to determine the compressive strength. The price adjustment will be determined using the following table. Concrete may be required to be removed and replaced if material is determined not structurally adequate.

These price adjustment guidelines will not apply to precast concrete.

Test on Compressive Strength (All Types of Concrete)

Amount Below Specified 28 Day Compressive Strength	Percent Reduction Applied to Contract Unit Price
0 to 100 psi	0-2%
100 to 200 psi	2-5%
200 to 300 psi	5-10%
300 to 400 psi	10-17%
400 to 500 psi	17-30%
over 500 psi	Remove & Replace

Deviation should be pro-rated to establish exact price reduction within the given range.

19. CONCRETE TEMPERATURE

Temperature Deviation (°F)	PCC Pavement (Formed) Deduct (%)	PCC Pavement (Slipform) Deduct (%)	M6 Deduct (%)	Class A45 Concrete, Bridge, Drilled Shaft Deduct (%)	Class A45 Concrete, Bridge Deck Deduct (%)	Class A45 Concrete, Bridge Repair Deduct (%)	Low Slump Deduct (%)	Precast Deduct (%)	Prestressed Deduct (%)
1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
2	3.0	3.0	3.0	3.0	4.0	3.0	5.0	3.0	3.0
3	6.0	6.0	6.0	6.0	10.0	6.0	10.0	6.0	6.0
4	11.0	11.0	11.0	11.0	20.0	11.0	20.0	11.0	11.0
5	20.0	20.0	20.0	20.0	X	20.0	X	20.0	20.0
+6 or more	X	X	X	X	X	X		X	X

X – Unacceptable

20. CONCRETE CURING COMPOUND

Linseed Oil Phase / Water Phase

DEVIATION ABOVE OR BELOW OIL % OR WATER % TOLERANCES	DEDUCTION
1% - 15%	0.1% - 1.5%
> 15%	2.0%

Note: Percent deductions are of project contract unit price for concrete.

Deviation should be pro-rated to establish exact price reduction within the given range.

Application Rate Deviation: Determine amount of material, in gallons, applied less than the application rate specified. For liquid membrane-forming compounds deduct \$3.00 per gallon of material not applied. For linseed oil base emulsion compounds deduct \$9.00 per gallon of material not applied.

Water Loss:

DEVIATION ABOVE MAXIMUM ALLOWED (kg/m ²)	DEDUCTION
0.01 - 0.25	0.1% - 2.5%
> 0.25	3.0%

Note: Percent deductions are of project contract unit price for concrete.

Deviation should be pro-rated to establish exact price reduction within the given range.

21. CONCRETE SURFACE SMOOTHNESS

The following price adjustments apply to concrete where the surface smoothness is tested in accordance with the 10 foot straightedge test requirements in Section 380.3 O.1 of the specifications including areas subject to the 10 foot straightedge testing referenced in Section 380.3 O.2, Section 460.3 L.4, the Special Provision for PI PCC Pavement Smoothness with 0.2”

Blanking Band, the Special Provision for PI PCC Pavement Smoothness with 0.2" Blanking Band (PCCP Overlay), and the Special Provision for IRI PCC Pavement Smoothness.

If the Engineer accepts the affected area without correction, a price reduction at the following rates will be deducted from the contract.

SURFACE DEVIATION FROM PERMISSABLE DEVIATION	DEDUCTION
≤ 1/8 inch	30%
> 1/8 inch to ≤ 3/8 inch	60%
> 3/8 inch	90%

Note: Percent deductions are of project contract unit price for concrete.

Measurements for determining the limits of deficient areas will be made in accordance with SD 417.

22. TIE BARS

For each missing or non-functioning tie bar, deduct \$40 per tie bar.

23. DOWEL BARS

For each dowel bar assembly noted in the GPR inspection report in need of a price adjustment, deduct \$305 per assembly.

24. GROOVE DEPTH

***Lot Average Deviations** (Deduction applied to the whole lot.)
Deduct 0.5% of the contract unit price per square yard of concrete.

***Test Site Deviations** (Deduction applied to the whole lot.)

- If there are any tests below 3/32" or above 10/32", then apply a 0.25% deduction for each failing test.
- If there are more than 2 tests below 4/32" or above 8/32", then apply a 0.25% deduction for each failing test.

* All deductions will be added together cumulatively.

25. SILICONE SEALANT

0.5% deduction to the contract unit price per failing test.

26. SEEDING

Testing is currently being performed for weed seeds. If the material is out of specification for the weed seed, the price adjustment will be: 1) a minimum price adjustment of \$200; 2) to require the Contractor to perform other measures; or 3) both – price adjustment and performing other measures.

Other measures are defined as those methods that may need to be implemented to minimize the effects of the deviation such as mowing, burning, reseeding, etc. Contacting other appropriate “experts” in the weed/seeding arena is recommended.

27. TEMPORARY PAVEMENT MARKING

Temporary pavement markings not applied at the end of the day will be price adjusted as follows:
Non-Interstate - \$100/mile/day
Interstate - \$200/mile/day

28. PAVEMENT MARKING

Glass Beads

For all sieve sizes, deduct 1/2% from contract unit price for pavement marking per percent deviation.

Pavement Marking Paint

Equivalent K.U. (Viscosity) - 0.5% deduction per K.U.

Percent Pigment:

Deviation	Deduction
0.0 to 0.5	0.0% to 0.5%
0.5 to 1.0	0.5% to 1.5%
1.0 to 1.5	1.5% to 3.0%
1.5 to 2.0	3.0% to 4.5%
2.0 to 2.5	4.5% to 6.5%

Unit Weight per Gallon – 1% per 0.01 pound per gallon deviation.

All deductions will be added together cumulatively.